REMARKS

Applicant requests reconsideration and further examination of this application.

Applicant appreciates the critique of its prior claims in the latest Office Action. Accordingly, the old claims have been canceled, and new method Claims 29-35 made. Respectfully, this should overcome the 35 USC § 101 and § 112 rejections.

Furthermore, the 35 USC § 103 rejection based upon the cited Basard et al. (USP #3,810,178), Cantwell (USP #4,680,588) and Mulder et al. (USP #4,213,126) references is respectfully traversed.

Re: **Basard et al ('178):**

This is an old Radar patent that teaches a method of improving upon prior technology to better approximate a Receiver gain function that varies with time (Range) to more accurately compensate for the nominal 1/Range^4 power drop off of the Radar Return Signal for any given Target as a function of Range. In particular, this patent covers a Monopulse type of Radar system using quadrature video channels to deduce both Range and axis angle for a Target. A Method of creating accurate gain variation that is close to identical in each video channel is disclosed.

The patent only discusses compensation for the normal 1/Range^4 power drop off for the purpose of maintaining an approximately constant signal level in the Receiver for a given Target independent of Target Range. Therefore, in Basard et al., the gain correction is fixed. **There is no mention made of utilizing a specific Receiver gain control as a function of a specific time (Range) to Shape the Detection Pattern at will,** as claimed by Applicant.

Re: **Cantwell ('588):**

This patent teaches a method of creating a large dynamic range in a Weather Radar Receiver by utilizing a step attenuator in a feed-forward manner. The attenuator setting for each Range cell is selected for the next sweep based upon data from prior sweeps.

The stated objective of this system is to minimize ground clutter effects and to detect and negate the effects of interference Radar pulses from other Radars. It is a further objective to keep a desired return signal level within the signal processing dynamic range to avoid clipping or saturation effects. Therefore, in Cantwell the gain correction is not specified; instead it "floats", depending on data from a prior range sweep. **There is no mention made of utilizing a specific**

Receiver gain control as a function of a specific time (Range) to Shape the Detection Pattern at will, as claimed by Applicant.

Re: **Mulder et al ('126):**

This patent teaches a method of creating an Airport Ground Surveillance Radar that has an output with constant Receiver Signal-Noise power ratio for a given Target that is independent of Range. In particular, the S:N is made to be independent of Range in the presence of rain clutter. An antenna with a very specialized fixed gain pattern is used in conjunction with a Receiver gain function that varies in time to create a 1/Range^2 gain compensation.

The entire objective here is only to maintain constant Receiver output power as a function of Range, even in the presence of rain clutter noise. Therefore, in Mulder et al the gain correction is also fixed. **There is no mention made of utilizing a specific Receiver gain control as a function of a specific time (Range) to Shape the Detection Pattern at will,** as claimed by Applicant.

Therefore, as admitted by the Examiner, no single cited reference discloses Applicant's currently claimed invention. Furthermore, because the disclosures of the cited references are so different, as described above, they may not be coherently combined to arrive at Applicant's claimed invention, either.

Applicant now believes the application is in condition for allowance and respectfully requests the same.

Respectfully submitted,

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